

## PATENT COOPERATION TREATY

PCT/EP2005/001802

From the INTERNATIONAL BUREAU

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## PCT

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis 3(c) and 72.2)

To

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IMPORTANT NOTIFICATION

Date of mailing (day/month/year)

08 February 2007 (08.02.2007)

Applicant's or agent's file reference

2004DE106

International application No.

PCT/EP2005/001802

International filing date (day/month/year)

22 February 2005 (22.02.2005)

Applicant

CLARIANT PRODUKTE (DEUTSCHLAND) GMBH et al

## 1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation.

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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**TRANSLATION****PATENT COOPERATION TREATY****PCT****INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>2004DE106</b>	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. <b>PCT/EP2005/001802</b>	International filing date (day/month/year) <b>22.02.2005</b>	Priority date (day/month/year) <b>03.03.2004</b>
International Patent Classification (IPC) or national classification and IPC <b>C09B67/22</b>		
Applicant <b>CLARIANT PRODUKTE (DEUTSCHLAND) GMBH</b>		

1 This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2 This REPORT consists of a total of \_\_\_\_\_ sheets, including this cover sheet.

3 This report is also accompanied by ANNEXES, comprising:

a ☐ (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions)

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b ☐ (sent to the International Bureau only) a total of \_\_\_\_\_ (indicate type and number of electronic carrier(s)) \_\_\_\_\_ containing a sequence listing and/or tables related therein, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4 This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No

PCT/EP2005/001802

## Box No. 1 Basis of the report

- 1 With regard to the language this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item:

☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))  
☐ publication of the international application (Rule 12.4)  
☐ international preliminary examination (Rule 55.2 and/or 55.3)

- 2 With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as 'originally filed' and are not annexed to this report):

- ☐ the international application as originally filed/furnished  
☒ the description:

pages 1-24 \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☒ the claims:

nos. 1-8 \_\_\_\_\_ as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ the drawings:

sheets \_\_\_\_\_ as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ a sequence listing and/or any related table(s) see Supplemental Box Relating to Sequence Listing

- 3 ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made. Since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c))

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded"

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1	Statement		
	Novelty (N)	Claims <u>1-8</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-8</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-8</u>	YES
		Claims _____	NO
2	Citations and explanations (Rule 70.7)		
	<p>V. Reference is made to the following documents:</p> <p>D1: EP-A-0 321 919</p> <p>D2: US-A-6 284 432</p> <p>D3: US-A-4 451 398</p> <p>D4: EP-A-0 504 923</p> <p>D5: Derwent World Patent Index, access number: 1997-381405 &amp; JP-A-9 165 528</p> <p>V.1. Claims 1-8 are novel over the searched prior art within the meaning of PCT Article 33(2).</p> <p>V.2. Claims 1-8 appear to involve an inventive step within the meaning of PCT Article 33(3).</p> <p>V.2.1. The problem addressed by the present application can be considered that of 'finding novel technical uses for the pigment preparation defined in claim 1'. Claim 1 constitutes a solution to this problem.</p> <p>V.2.2. The pigment compositions made in examples 14-21 of D1 come within the pigment preparation defined in the present claim 1.</p> <p>There is a general reference in D1 to toners: "Depending on the intended use, it will prove to be advantageous to</p>		

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

use the pigments of the present invention as toners or in the form of formulations or dispersions. Based on the macromolecular organic material to be pigmented, the compounds of the stated formula I are used in an amount of preferably 0.1% to 10% by weight."

The other specific fields of application which are mentioned in the present claim 1 are not mentioned in D1. D1 does not specify the use sector of the pigments with regard to the proposed toners. With regard to use in the sector of electrophotography, specific requirements are expected to be met by the mixture of pigment and pigment derivative. A person skilled in the art would have to undertake appropriate further tests on the pigment formulations disclosed in D1 to determine their utility as toners for electrophotography, and thus would have to be inventive. An inventive step can therefore be acknowledged for the present claim 1 over D1.

V.2.3. D4 likewise discloses P.V.23 formulations incorporating corresponding derivatives (see for example formula III on page 5 of D4); again, toners are mentioned as a possible use: "Depending on the intended use, it will prove to be advantageous to use the pigment preparations obtained according to the present invention as toners or in the form of formulations or dispersions" (D4 page 6 lines 34, 35). D4 likewise does not specify a use sector of the pigments with regard to the proposed toners.

The subject matter of the present claims 1-8 can thus be acknowledged to involve an inventive step over D4 for the same reasons as mentioned in V.2.2.

V.2.4. D2 discloses various pigments which are surface-modified by introduction of SO<sub>3</sub>H or sulphonamide groups;

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

thus modified pigments provide stable dispersions and a reduced tendency to floc (see D2 column 1). Example 2 combines Pigment Violet 23 with a pigment derivative having the same basic chemical structure, to produce a colour filter.

The difference between D2 and the present claim 1 is the chemical structure of the attached side groups. D2 likewise describes the production of colour filters which contain or are coated with the pigment compositions described. To arrive at the subject matter of claim 1 without an inventive step, a person skilled in the art would have to find pointers in D2 for modifying the side groups described therein (-SO<sub>3</sub>H/-SO<sub>2</sub>NR<sub>1</sub>X) in the direction of the chemical group (II) of the main claim. Such a pointer cannot be found in D2, and therefore claim 1 is deemed to be inventive compared with D2.

V.2.5. Example 75 of D3 discloses a pigment combination of P.V.23 with a 4-methylimidazole-P.V.23 derivative; however, the D3 formulations are exclusively used for paper coloration, so that there is nothing in D3 to point a person skilled in the art towards a use within the meaning of the present claim 1.

Claims 1-8 are therefore acknowledged to involve an inventive step compared with D3.

V.2.6. D5 describes a pigment-conditioning process evidently without addition of pigment derivatives which lead to advantageous pigment preparations in, inter alia, electrophotographic toners, colour filters or else ink jet inks. Carbazole Dioxazine Violet is mentioned, a trade name for Pigment Violet 23.

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

VII. Contrary to PCT Rule 5.1(a)(ii), the description does not cite documents D3 and D5 or indicate the relevant prior art disclosed therein.